## RAW SEQUENCE LISTING

EB

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/663,497 <u>B</u>
Source:	1FW16.
Date Processed by STIC:	. /2/22/06

## ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 12/22/2006
PATENT APPLICATION: US/10/663,497B TIME: 12:12:13

Input Set : N:\efs\12 22 06\10663497b efs\Seqlist 12 20 06.txt

Output Set: N:\CRF4\12222006\J663497B.raw

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4 <110> APPLICANT: Dale Umetsu
             Rosemarie DeKruyff
             Jennifer McIntire
     6
             Gordon Freeman
     9 <120> TITLE OF INVENTION: T CELL REGULATORY GENES ASSOCIATED WITH
    10
             IMMUNE DISEASE
    12 <130> FILE REFERENCE: STAN-235CIP
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/663,497B
C--> 14 <141> CURRENT FILING DATE: 2003-09-15
    14 <150> PRIOR APPLICATION NUMBER: 60/302,344
    15 <151> PRIOR FILING DATE: 2001-06-29
    17 <150> PRIOR APPLICATION NUMBER: 10/188,012
    18 <151> PRIOR FILING DATE: 2002-07-01
    20 <160> NUMBER OF SEQ ID NOS: 58
    22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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    26 <212> TYPE: PRT
    27 <213> ORGANISM: M. musculus
    29 <220> FEATURE:
    30 <221> NAME/KEY: VARIANT
    31 <222> LOCATION: (1)...(305)
    32 <223> OTHER INFORMATION: TIM-1 BALB/c allele
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    37 Gly Thr Val Asp Ser Tyr Val Glu Val Lys Gly Val Val Gly His Pro
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                                        25
    39 Val Thr Leu Pro Cys Thr Tyr Ser Thr Tyr Arg Gly Ile Thr Thr Thr
                                   40
         35
    41 Cys Trp Gly Arg Gly Gln Cys Pro Ser Ser Ala Cys Gln Asn Thr Leu
                               55
    43 Ile Trp Thr Asn Gly His Arg Val Thr Tyr Gln Lys Ser Ser Arg Tyr
                           70
                                               75
     45 Asn Leu Lys Gly His Ile Ser Glu Gly Asp Val Ser Leu Thr Ile Glu
                                            90
    47 Asn Ser Val Glu Ser Asp Ser Gly Leu Tyr Cys Cys Arg Val Glu Ile
                   100
                                        105
     49 Pro Gly Trp Phe Asn Asp Gln Lys Val Thr Phe Ser Leu Gln Val Lys
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    51 Pro Glu Ile Pro Thr Arg Pro Pro Thr Arg Pro Thr Thr Arg Pro
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    53 Thr Ala Thr Gly Arg Pro Thr Thr Ile Ser Thr Arg Ser Thr His Val
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Input Set: N:\efs\12\_22\_06\10663497b\_efs\Seqlist\_12\_20\_06.txt

Output Set: N:\CRF4\12222006\J663497B.raw

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55 Pro Thr Ser Ile Arg Val Ser Thr Ser Thr Pro Pro Thr Ser Thr His
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57 Thr Trp Thr His Lys Pro Glu Pro Thr Thr Phe Cys Pro His Glu Thr
58
               180
                                   185
59 Thr Ala Glu Val Thr Gly Ile Pro Ser His Thr Pro Thr Asp Trp Asn
                               200
61 Gly Thr Val Thr Ser Ser Gly Asp Thr Trp Ser Asn His Thr Glu Ala
      210
                           215
                                               220
63 Ile Pro Pro Gly Lys Pro Gln Lys Asn Pro Thr Lys Gly Phe Tyr Val
64 225
                       230
                                          235
65 Gly Ile Cys Ile Ala Ala Leu Leu Leu Leu Leu Leu Val Ser Thr Val
                   245
                                       250
67 Ala Ile Thr Arg Tyr Ile Leu Met Lys Arg Lys Ser Ala Ser Leu Ser
               260
                                   265
68
69 Val Val Ala Phe Arq Val Ser Lys Ile Glu Ala Leu Gln Asn Ala Ala
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                               280
70
71 Val Val His Ser Arq Ala Glu Asp Asn Ile Tyr Ile Val Glu Asp Arg
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74 305
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78 <211> LENGTH: 918
79 <212> TYPE: DNA
80 <213> ORGANISM: Mus musculus
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84 tettatgtgg aagtaaaggg ggtagtgggt caccetgtea cacttecatg tacttactea 120
85 acatatcgtg gaatcacaac gacatgttgg ggccgagggc aatgcccatc ttctgcttgt 180
86 caaaatacac ttatttggac caatggacat cgtgtcacct atcagaagag cagtcggtac 240
87 aacttaaagg ggcatatttc agaaggagat gtgtccttga cgatagagaa ctctgttgag 300
88 agtgacagtg gtctgtattg ttgtcgagtg gagattcctg gatggtttaa tgatcagaaa 360
89 gtgacctttt cattgcaagt taaaccagag attcccacac gtcctccaac aagacccaca 420
90 actacaagge ccacagetae aggaagacee acgaetattt caacaagate cacacatgta 480
91 ccaacatcaa tcagagtctc tacctccact cctccaacat ctacacacac atggactcac 540
92 aaaccagaac ccactacatt ttgtccccat gagacaacag ctgaggtgac aggaatccca 600
93 teccatacte etacaquetq quatqqcact qtqueatect caqququtac etqquqtaat 660
94 cacactgaag caatccctcc agggaagccg cagaaaaacc ctactaaggg cttctatgtt 720
95 ggcatctgca tcgcagccct gctgctactg ctccttgtga gcaccgtggc tatcaccagg 780
96 tacatactta tgaaaaggaa gtcagcatct ctaagcgtgg ttgccttccg tgtctctaag 840
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102 <212> TYPE: PRT
103 <213> ORGANISM: Mus musculus
105 <220> FEATURE:
106 <221> NAME/KEY: VARIANT
107 <222> LOCATION: (1)...(282)
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Input Set : N:\efs\12\_22\_06\10663497b\_efs\Seqlist\_12\_20\_06.txt

Output Set: N:\CRF4\12222006\J663497B.raw

108 <223> OTHER INFORMATION: TIM-1, C.D2 ES-HBA and DBA/2J allele 110 <400> SEQUENCE: 3 111 Met Asn Gln Ile Gln Val Phe Ile Ser Gly Leu Ile Leu Leu Pro 112 1 5 113 Gly Ala Val Asp Ser Tyr Val Glu Val Lys Gly Val Val Gly His Pro 20 25 115 Val Thr Leu Pro Cys Thr Tyr Ser Thr Tyr Arg Gly Ile Thr Thr Thr . 40 117 Cys Trp Gly Arg Gly Gln Cys Pro Ser Ser Ala Cys Gln Asn Thr Leu 119 Ile Trp Thr Asn Gly His Arg Val Thr Tyr Gln Lys Ser Ser Arg Tyr 70 75 121 Asn Leu Lys Gly His Ile Ser Glu Gly Asp Val Ser Leu Thr Ile Glu 85 90 123 Asn Ser Val Glu Ser Asp Ser Gly Leu Tyr Cys Cys Arg Val Glu Ile 100 105 124 125 Pro Gly Trp Phe Asn Asp Gln Lys Val Thr Phe Ser Leu Gln Val Lys 126 115 120 125 127 Pro Glu Ile Pro Thr Arg Pro Pro Arg Arg Pro Thr Thr Arg Pro 130 - 135 140 129 Thr Ala Thr Gly Arg Pro Thr Thr Ile Ser Thr Arg Ser Thr His Val 150 155 131 Pro Thr Ser Thr Arg Val Ser Thr Ser Thr Pro Pro Thr Ser Thr His 165 170 133 Thr Trp Thr His Lys Pro Asp Trp Asn Gly Thr Val Thr Ser Ser Gly 134 180 185 135 Asp Thr Trp Ser Asn His Thr Glu Ala Ile Pro Pro Gly Lys Pro Gln 195 200 205 137 Lys Asn Pro Thr Lys Gly Phe Tyr Val Gly Ile Cys Ile Ala Ala Leu 215 139 Leu Leu Leu Leu Val Ser Thr Val Ala Ile Thr Arg Tyr Ile Leu 140 225 230 235 141 Met Lys Arg Lys Ser Ala Ser Leu Ser Val Val Ala Phe Arg Val Ser 142 245 250 143 Lys Ile Glu Ala Leu Gln Asn Ala Ala Val His Ser Arg Ala Glu 260 265 145 Asp Asn Ile Tyr Ile Val Glu Asp Arg Pro 275 149 <210> SEQ ID NO: 4 150 <211> LENGTH: 849 151 <212> TYPE: DNA 152 <213> ORGANISM: Mus musculus 154 <400> SEQUENCE: 4 155 atgaatcaga ttcaagtctt catttcaggc ctcatactgc ttctcccagg cgctgtggat 60 156 tettatgtgg aagtaaaggg ggtggtgggt caccetgtca cacttecatg tacttactca 120 157 acatatogtg gaatcacaac gacatgttgg ggccgagggc aatgcccatc ttctgcttgt 180 158 caaaatacac ttatttggac caatggacat cgtgtcacct atcagaagag cagtcggtac 240 159 aacttaaagg ggcatatttc agaaggagat gtgtccttga cgatagagaa ctctgttgag 300 160 agtgacagtg gtctgtattg ttgtcgagtg gagattcctg gatggtttaa tgatcagaaa 360

Input Set: N:\efs\12\_22\_06\10663497b\_efs\Seqlist\_12\_20\_06.txt

- Output Set: N:\CRF4\12222006\J663497B.raw 161 gtgacctttt cattgcaagt taaaccagag attcccacac gtcctccaag aagacccaca 420 162 actacaaggc ccacagctac aggaagaccc acgactattt caacaagatc cacacatgta 480 163 ccaacatcaa ccaqagtete tacetecaet cetecaacat etacacacae atggaeteae 540 164 aaaccagact ggaatggcac tgtgacatcc tcaggagata cctggagtaa tcacactgaa 600 165 gcaatccctc cagggaagcc gcagaaaaac cctactaagg gcttctatgt tggcatctgc 660 166 ategeageee tgetgetact geteettgtg ageaeegtgg etateaceag gtacatactt 720 167 atgaaaagga agtcagcatc tctaagcgtg gttgccttcc gtgtctctaa gattgaagct 780 168 ttgcagaacg cageggttgt gcatteeega getgaagaea acatetacat tgttgaagat 840 169 agaccttga 849 171 <210> SEQ ID NO: 5 172 <211> LENGTH: 305 173 <212> TYPE: PRT 174 <213> ORGANISM: Mus musculus 176 <220> FEATURE: 177 <221> NAME/KEY: VARIANT 178 <222> LOCATION: (1)...(305) 179 <223> OTHER INFORMATION: TIM-2 BALB/c allele 181 <400> SEQUENCE: 5 🖫 - 182 Met Asn Gln Ile Gln Val Phe Ile Ser Gly Leu Ile, Leu Leu Pro 183 1 5 184 Gly Ala Val Glu Ser His Thr Ala Val Gln Gly Leu Ala Gly His Pro 20 25 186 Val Thr Leu Pro Cys Ile Tyr Ser Thr His Leu Gly Gly Ile Val Pro 40 188 Met Cys Trp Gly Leu Gly Glu Cys Arg His Ser Tyr Cys Ile Arg Ser 55 60 190 Leu Ile Trp Thr Asn Gly Tyr Thr Val Thr His Gln Arg Asn Ser Arg 70 75 192 Tyr Gln Leu Lys Gly Asn Ile Ser Glu Gly Asn Val Ser Leu Thr Ile 85 90 194 Glu Asn Thr Val Val Gly Asp Gly Gly Pro Tyr Cys Cys Val Val Glu 105 195 196 Ile Pro Gly Ala Phe His Phe Val Asp Tyr Met Leu Glu Val Lys Pro 197 115 120 125 198 Glu Ile Ser Thr Ser Pro Pro Thr Arg Pro Thr Ala Thr Gly Arg Pro 135 200 Thr Thr Ile Ser Thr Arg Ser Thr His Val Pro Thr Ser Thr Arg Val 150 155 202 Ser Thr Ser Thr Ser Pro Thr Pro Ala His Thr Glu Thr Tyr Lys Pro
  - 202 Ser Thr Ser Thr Ser Pro Thr Pro Ala His Thr Glu Thr Tyr Lys Pro

     203
     165
     170
     175

     204 Glu Ala Thr Thr Phe Tyr Pro Asp Gln Thr Thr Ala Glu Val Thr Glu

     205
     180
     185
     190
  - 206 Thr Leu Pro Ser Thr Pro Ala Asp Trp His Asn Thr Val Thr Ser Ser
    207 195 200 205
  - 208 Asp Asp Pro Trp Asp Asp Asn Thr Glu Val Ile Pro Pro Gln Lys Pro 209 210 215 220
  - 210 Gln Lys Asn Leu Asn Lys Gly Phe Tyr Val Gly Ile Ser Ile Ala Ala 211 225 230 235 240
  - 212 Leu Leu Ile Leu Met Leu Leu Ser Thr Met Val Ile Thr Arg Tyr Val

Input Set: N:\efs\12\_22\_06\10663497b\_efs\Seqlist\_12\_20\_06.txt

Output Set: N:\CRF4\12222006\J663497B.raw

245 213 214 Val Met Lys Arg Lys Ser Glu Ser Leu Ser Phe Val Ala Phe Pro Ile 216 Ser Lys Ile Gly Ala Ser Pro Lys Lys Val Val Glu Arg Thr Arg Cys 280 285 217 275 218 Glu Asp Gln Val Tyr Ile Ile Glu Asp Thr Pro Tyr Pro Glu Glu Glu 300 219 295 220 Ser 221 305 224 <210> SEQ ID NO: 6 225 <211> LENGTH: 958 226 <212> TYPE: DNA 227 <213> ORGANISM: Mus musculus 229 <400> SEOUENCE: 6 230 aagctacggc teteteetaa etggtegtae catgaateag atteaagtet teattteagg 60 231 cctcatactg cttctcccag gtgccgtgga gtctcataca gcagtgcagg ggctggcggg 120 232 teaccetgte acaetteeat gtatttatte gacacacett ggtggaateg tteetatgtg 180 233 ttggggccta ggggaatgcc gccattctta ttgtatacgg tcacttatct ggaccaatgg 240 . 234 atatacggtc acacatoaga ggaacagtog ataccagota aaggggaata titicagaagg 300-235 aaatgtgtcc ttgaccatag agaacactgt tgtgggtgat ggtggtccct attgctgtgt 360 236 aqtqqaqata cctqqaqcqt tccattttqt qgactatatq ttggaagtta aaccagaaat 420 237 ttccacgagt ccaccaacaa ggcccacagc tacaggaaga cccacaacta tttcaacaag 480 238 atccacacat gtaccaacat caaccagagt ctctacctct acttctccaa caccagcaca 540 239 cacagagace tacaaaccag aggecactae attttateca gateagacta cagetgaggt 600 240 gacagaaacc ttaccctcta ctcctgcaga ctggcataac actgtgacat cctcagatga 660 241 cccttgggat gataacactg aagtaatccc tccacagaag ccacagaaaa acctgaataa 720 242 gggcttctat gttggcatct ccattgcagc cctgctgata ttgatgcttc tgagcaccat 780 243 ggttatcacc aggtacgtgg ttatgaaaag gaagtcagaa tctctgagct ttgttgcctt 840 244 ccctatctct aagattggag cttcccccaa aaaagtggtc gaacggacca gatgtgaaga 900 245 ccaggtctac attattgaag acactcctta ccctgaagaa gagtcctagt gcctctac 247 <210> SEQ ID NO: 7 248 <211> LENGTH: 305 249 <212> TYPE: PRT 250 <213> ORGANISM: Mus musculus 252 <220> FEATURE: 253 <221> NAME/KEY: VARIANT 254 <222> LOCATION: (1)...(305) 255 <223> OTHER INFORMATION: TIM-2, C.D2 ES-HBA and DBA/2J allele 257 <400> SEQUENCE: 7 258 Met Asn Gln Ile Gln Val Phe Ile Ser Gly Leu Ile Leu Leu Pro 259 1 5 10 260 Gly Ala Val Glu Ser His Thr Ala Val Gln Gly Leu Ala Gly His Pro 20 25 262 Val Thr Leu Pro Cys Ile Tyr Ser Thr His Leu Gly Gly Ile Val Pro 264 Met Cys Trp Gly Leu Gly Glu Cys Arg His Ser Tyr Cys Ile Arg Ser 266 Leu Ile Trp Thr Asn Gly Tyr Thr Val Thr His Gln Arg Asn Ser Arg

75

70

267 65

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/663,497B

DATE: 12/22/2006 TIME: 12:12:14

Input Set : N:\efs\12\_22\_06\10663497b\_efs\Seqlist\_12\_20\_06.txt
Output Set: N:\CRF4\12222006\J663497B.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date